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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/052,127	01/17/2002	Rangamani Sundar	110014.137	1702

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EXAMINER

MEHRPOUR, NAGHMEH

ART UNIT

PAPER NUMBER

2617

DATE MAILED: 05/16/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/052,127

Applicant(s)

SUNDAR ET AL.

Examiner

Naghmeh Mehrpour

Art Unit

2617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on 13 December 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. **Claims 1, 3-6, 8-10**, are rejected under 35 U.S.C. 102(e) as being anticipated by Bridgelall (US Publication 2002/0085516 A1).

Regarding claim 1, Bridgelall teaches a method of managing mobility of a mobile station across an 802.xx wireless local area network (WLAN) and a wireless wide area network (WWAN) in which a mobile switching center (MSC) has been provisioned to act as a serving MSC for the WLAN (0011), comprising:

a) a mobile station detecting the RF energy of the WLAN and validating its ability to be a member of the WLAN (0011);

(b) in response to step (a), the mobile station issuing a registration request to the serving MSC for the WLAN (0075);

(c) in response to step (b), the serving MSC for the WLAN causing the WWAN to recognize that the mobile station is registered with the serving MSC for the WLAN and that the mobile station is no longer served by a prior MSC (0075);

(d) the mobile station communicating to entities outside of the WLAN by communicating with the WLAN via a WLAN protocol and the WLAN communicating with the WWAN via the serving MSC or the WLAN (0075).

Regarding claim 3, Bridgelall teaches a method further including the MSC serving the WLAN sending a de-registration request to an MSC that previously served the mobile station (0041).

Regarding claim 4, Bridgelall teaches a method wherein the MSC (WMC) serving the WLAN sends a registration notification message to an HLR to update the WWAN with location information of the mobile station, and wherein the HLR communicates with a prior MSC to cancel service thereof of the mobile station (0032).

Regarding claim 5, Bridgelall teaches a method wherein the MSC (WMC) serving the WLAN sends an update location message to an HLR to update the WWAN with location information of the mobile station, and wherein the HLR communicates with a prior MSC to cancel service thereof of the mobile station, and wherein the HLR communicates with the MSC serving the WLAN to insert thereof the mobile station as a subscriber for service (0032).

Regarding claim 6, Bridgelall teaches a method wherein a mobile station detects the WLAN and validates its ability to be a member of the WLAN while the mobile station is participating in a call using a WWAN air interface protocol and in response thereto

sending a message to a source MSC that is servicing the call that a handoff is desired (0044, 0051);

the source MSC analyzing the message, establishing itself as an anchor MSC, and establishing communication channels with a target MSC servicing the detected WLAN (0047);

the mobile station beginning communication with the WLAN via a WLAN air interface;

the WLAN forwarding messages to the target MSC serving the WLAN via IP communication; and the target MSC relaying those communication to the anchor MSC (0051).

Regarding claim 8, Bridgelall teaches a method further including:

a mobile station determining that it should communicate via a WWAN air interface protocol and not via a WLAN air interface protocol (0011, 0051);

the mobile station issuing a registration request to the WWAN via a base station controller (BSC) and MSC corresponding to a location in which the mobile station resides (0032-0035);

the corresponding MSC causing the WWAN to recognize that the mobile station is registered with the corresponding MSC and that the mobile station is no longer served by a prior MSC, which served the mobile station when it was communicating according to a WLAN air interface protocol (0051-0052).

Regarding claim 9, Bridgelall teaches a method wherein a mobile station determines that it should communicate according to a WWAN air interface protocol while the mobile station is participating in a call under a WLAN air interface protocol and in response thereto

sending a message to a source MSC (WMC) that is servicing the call that a handoff is desired (0052-0054);

the source MSC analyzing the message, establishing itself as an anchor MSC (0054), and establishing communication channels with a target MSC servicing a geographic WWAN area in which the mobile station resides (0037, 0053-0055);

the mobile station beginning communication with the WWAN and the target MSC relaying those communication to the anchor MSC (0011, 0032, 0052).

Regarding claim 10, Bridgelall teaches a method wherein the mobile station informs the MSC (WMC) serving the WLAN of the cell ids of the WWAN geographic area (page 5 section 0054), and wherein the source MSC uses the cell ids information to establish communication channels with the target MSC (0056).

3. **Claims 2, 7, 11**, are rejected under 35 U.S.C. 103(a) as being unpatentable Bridgelall (US Publication 2002/0085516 A1) in view of Chaney et al. (US Publication 2003/0108000 A1).

Regarding claims 2, 7, Bridgelall teaches a method wherein the mobile stations sends via a WLAN air interface protocol a handoff request message as an overloaded SIP command and the WLAN communicates the handoff request message to the target MSC (page 4 section 0033). Bridgelall fails to teach the Handoff request is an overload SIP command. However Chaney teaches a system and method of providing a subscriber service to service users in a telecommunications network. In networks utilizing Session Initiation Protocol (SIP) control signaling for call setup and control, the SIP REGISTER message is modified to indicate service capability information and optionally a traffic load indication for service providers (page 3 sections 0032, 0036 and abstract). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the above teaching Chaney with Bridgelall, in order to prevent congestion by notifying the system of overload and invite one system to handoff to other.

Regarding claim 11, Bridgelall teaches a method of handoff from WWAN to WLAN and vise versa utilizing session Initiation Protocol (SIP) control signaling for call set-up and call control (page 4 section 0033). Bridgelall modified by Bridgelall fails to teach the Handoff request is an overload SIP command. However Chaney teaches a system and

method of providing a subscriber service to service users in a telecommunications network. In networks utilizing Session Initiation Protocol (SIP) control signaling for call setup and control, the SIP REGISTER message is modified to indicate service capability information and optionally a traffic load indication for service providers (page 3 sections 0032, 0036 and abstract). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the above teaching Chaney with Bridgelall modified by Bridgelall, in order to prevent congestion by notifying the system of overload and invite one system to handoff to other.

4. **Claim 12**, is rejected under 35 U.S.C. 103(a) as being unpatentable over Bridgelall (US Publication 2002/0085516 A1) in of view Yukie (US Patent Number 2002/0036392 A1).

Regarding claim 12, Bridgelall teaches a method wherein a mobile station determines that it should communicate according to a WWAN air interface protocol while the mobile station is participating in a call under a WLAN air interface protocol (Page 5 sections 0040, 0042), and further Bridgelall teaches VLR may be used to hold temporary information about active subscribers that are operating within the control of that particular MSC (page 3 section 0026).

Bridgelall fails to explain the procedures of handoff using the temporary number.

However, Yukie teaches the step of in response to sending a message to a source

MSC to request a temporary local directory number (TLDN) the source MSC providing a TLDN to the mobile station;
the source MSC causing a called party of the call to be placed on hold and the mobile station requests a call to be made using the TLDN as a called party;
the WWAN causing call connections to be made connecting the mobile station with the TLDN to resume the call (page 6 section 0059). Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to combine the above teaching of Yukie with Bridgelall, in order to provide a system with higher information transfer rate, by transferring data to mobile unit automatically through a wireless package switched network and a wireless circuit switch network, without any interruption.

Response to Arguments

5. Applicant's arguments with respect to claim 1-12, have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. **Any responses to this action should be mailed to:**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Naghmeh Mehrpour whose telephone number is 703-308-7159. The examiner can normally be reached on 8:00- 6:00.

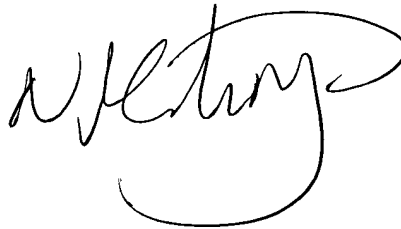
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lester Kincaid be reached on (703) 306-3061.

The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

NM

May 11, 2006



MELODY MEHRPOUR
PATENT EXAMINER